Three Dimensional Sensor Laser Noise Reduction Method

Abstract of Disclosure

A method for improving the accuracy of measurements made in non-contact gauging an object utilizing a detector to observe a laser line projected onto a surface of the object. A combination of detector lens f-number adjustments, surface scatter statistics, and laser coherence control are utilized to reduce speckle noise in the structured light gauge measurement system without the use of moving mechanical parts This eliminates added mechanical motion errors and maximizes detectable laser light.

Figures